

REMARKS

Claims 1-20 have been examined. Claim 21 has been added. Claims 1-21 are all the claims pending in the application.

Formal matters

Applicant thanks the Examiner for accepting the drawings as filed on April 20, 2004 and for acknowledging claim to foreign priority and receipt of a certified copy of the priority document. Applicant also thanks the Examiner for reviewing and initialing the documents in the Information Disclosure Statement submitted September 10, 2004.

Applicant notes that the Examiner has objected to the specification, but has not provided any comments about what, specifically, is objected to. Applicant cannot respond to such a general objection. Applicant therefore respectfully requests that the Examiner either specifically point out what the Examiner finds objectionable or remove the objection.

Claim rejections -- 35 U.S.C. § 112

Claims 7 and 16 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Examiner argues that since the position of the object is unknown before the predetermined time is set, it is unclear how the predetermined time is set to be longer than a time from the change of the frequency to the time the traveling wave reaches the first position.

Applicant directs the Examiner to page 18, lines 5-26 of the specification for the enabling description. For example, claim 7 recites the feature that the predetermined time is longer than a

time from the change in frequency to the time the first traveling wave reaches the first position of the distance measuring system (see claim 1) as said first reflected wave. Claim 16 recites a similar feature. Applicant respectfully submits that this claim language is both clear and enabled, and respectfully requests the Examiner to withdraw the rejection.

Claim rejection -- 35 U.S.C. § 102

Claims 1, 10 and 20 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by European Patent No. WO02/079799 to Iritani (as translated in U.S. Patent Application Publication No. 2004/0119966). Applicant respectfully traverses this rejection.

For example, claim 1 recites the requirement of executing a first calculation to derive a relative speed between the first position and the measurement object. The Examiner maintains that this feature is met by Iritani at parags. 9 and 10. However, Iritani only discloses measuring a distance between a detection means and an object at these paragraphs, and thus does not disclose the claimed feature of deriving a relative speed. Therefore, Applicant submits that claim 1 is patentable over Iritani for at least this reason. Claims 10 and 20 recite similar features, and therefore claims 10 and 20 are patentable over Iritani for the same reasons discussed above. Applicant therefore respectfully requests the Examiner to withdraw the rejection.

Claim rejections -- 35 U.S.C. § 103

Claims 2-9 and 11-19 stand rejected under 35 U.S.C. § 103(a) as allegedly being anticipated by Iritani in view of U.S. Patent No. 6,373,558 to Hasson. Applicant respectfully traverses this rejection.

Claims 2-9 depend from claim 1 and 11-19 depend from claim 10. Both claims 1 and 10 have been shown above to be patentable over Iritani. Hasson does not cure the deficiencies of Iritani discussed above. Therefore, claims 2-9 and 11-19 are patentable over the Iritani / Hasson combination for at least the reasons discussed above.

Moreover, claim 2 recites the feature of sending a second electromagnetic wave and detecting an amplitude of a second standing wave at a second position of the distance measurement system. The Examiner asserts that it would have been obvious to send a second wave because this is common practice to increase the accuracy of the distance measuring method, and cites to Hasson at col. 8 in support of this assertion. However, Applicant disagrees with the Examiner's position.

Hasson generally discloses a ranging method which measures solar energy reflected from a target. In order to do so, Hasson uses the selective attenuation of the radiation by the atmosphere with increasing distance from the target. By measuring the radiation from various frequencies A, B, and C, which are attenuated differently by the atmosphere, Hasson is able to use various ratios between the intensity of the radiation to compute a distance. By adding additional frequencies, e.g. D and E, the accuracy of the measurement may be increased because more intensity ratios are provided. (col. 8, lines 45-47). However, in order to increase accuracy, the ratios must be statistically independent. (col. 8, lines 59-67). The Examiner will appreciate that this situation -- measuring distance using ratios of intensity of radiated solar energy -- is not the same as the method of the present invention. Their principles of operation are quite different.

Therefore, Applicant submits that it would not have been obvious to send a second wave and measure the amplitude at a second distance.

Claim 11 recites a similar feature and is therefore patentable for the same reason as claim
2. Claims 3-4 and 12-13 are patentable based on their dependencies.

New claims

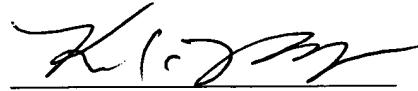
Applicant has added new claim 21 in order to claim additional features of the invention.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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